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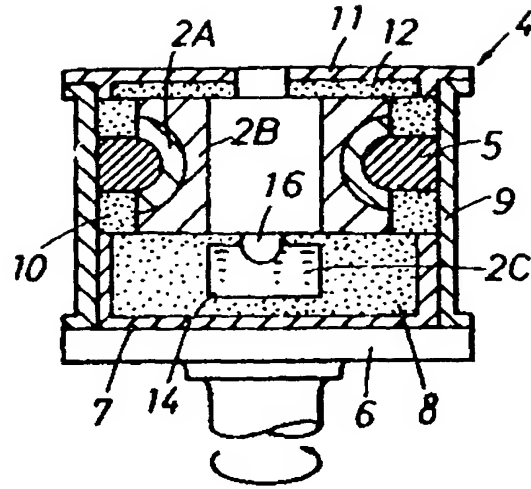
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TITLE : PRODUCTION OF CALIBER ROLL FOR
ROLLING BY VERTICAL
CENTRIFUGAL CASTING AND ITS
CASTING MOLD



ABSTRACT : PURPOSE: To obtain a composite sleeve provided with desired high toughness in an inside shell material by forming a solidified outside shell part along the chiller surface in a casting mold under rotation, and dropping and removing the unsolidified metal from the inside peripheral surface of the mold then charging the molten metal for the inside shell.

CONSTITUTION: A caliber ring chiller 5 corresponding to the position of a casting where a caliber is to be formed is disposed in a casting mold 4 for casting a composite sleeve consisting of an outside shell layer 2A and an inside shell layer 2B, and a narrow bag-like molten metal well 14 is recessed in a bottom sand mold 8. The mold 4 is then rotated and the molten metal for an outside shell is charged therein to form a solidified outside shell layer 2A along the surface of the chiller 5 and thereafter the rotation is stopped or the number of rotation is decreased to drop and remove the unsolidified metal 2C into the molten metal well 14 from the inside peripheral surface of the casting mold. The number of rotation of the mold 4 is increased again thereafter and the molten metal for the inside shell is charged therein to form an inside shell layer 2B without mixing the same with the metal 2C thereby welding said layer in one body to the layer 2A. The intrusion of the molten metal for the outside shell in the molten metal for the inside shell is thus surely prevented.

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